MTI Follow-up Webinar

Addition: Strategies, Models, Context & the CCSS

Grades K-3

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Suggestions for Usage

This webinar is designed to assist teachers, administrators and instructional coaches in interpreting and making connections within the addition standards as stated in the Common Core State Standards for Mathematics (CCSS-M). It will provide opportunities for that group to investigate the different strategies defined in the CCSS-M in which students are expected to understand and use when solving addition problems. There will be examples of models that can be used to notate those strategies as well as contextual problems. This webinar will show the connections between the strategies and models from Kindergarten through 3rd grade.

Materials Needed

Teachers will need the participation guide and strategy and model handout prior to the webinar.

A recording of *Addition: Strategies, Models, Context & CCSS: K-3* to project or share with participants.

Procedures and Discussions

1. Before viewing the webinar, teachers need to have paper and pencil, a copy of their grade level Common Core State Standards, the strategy and model handout and the participation guide.
2. You may want to have the teachers identify and read through the addition standards for their grade level prior to the webinar.
3. Potential Warm-up- The sample problems on the handout could be used as a warm up to the webinar. The participants could solve them using different strategies and models.

Begin the webinar.

4. Part 2: Addition Strategies-
    a. Make sure all participants have the Strategies and Models handout. The equations on that handout will coincide with the ones from the webinar. They may choose to use the handout to make notes about the different strategies described in the CCSS-M.
    b. You may want to pause at the 2nd slide of Part 2 where the participants are given 4 addition problems. Here are some guiding questions:
        i. What strategies and models would you choose to solve the 4 problems?
        ii. How would you want to notate how you chose to solve it?
        iii. Is there another way to show or notate the strategies shown on the slide?
        iv. What are other equations you could give your students that would press them to use the same strategy?
    c. Pause at the next 4 addition problems that are presented in the webinar. Guiding questions:
        i. What strategy would you choose to solve the 4 problems?
        ii. How would you want to notate how you chose to solve it?

iii. Try the strategies suggested on the slide for each problem. Are they different from your choice of strategy?

5. Part 3: Context
    a. After each contextual example, you may choose to pause the webinar to lead a discussion to help make connections between the grade levels, their standards and strategies.
        i. Which materials, models and drawings would your students use to solve these addition problems?
        ii. What strategies are important for Kindergarteners to know and use when they enter 1st grade? (1st→2nd or 2nd→3rd)
        iii. Which models would transfer from one grade level to the next? What are the differences between what those models would look like for each grade level?
6. Which Strategy Would you Choose? Slide (pause)
    a. Have teachers consider their strategy without solving the problem.
    b. Compare their reasoning for their strategy with others. Is one strategy more efficient than another?
    c. The CCSS-M for grade 2 indicates that students should be fluent with the facts to 20 using mental strategies. What does this mean? What would this look like/sound like? How is that different than being fluent within 100? What would this look like with 2nd graders?

Extensions

1. Have teachers work in cross grade level groups to create contextual problems that could be used in grades K-3. Identify numbers that would be appropriate for each grade level. When choosing the numbers, have teachers determine the strategies they anticipate their students using when solving the problem. Have the group consider all the strategies and models that students may use to solve the problem. Make the connections between what is required from one grade level to the next.
2. Work on developing a possible progression of addition strategies and models for grades K-3. Use the CCSS-M to reference when new strategies or models are introduced, number set changes, etc.

Resources

Common Core Standards – http://www.corestandards.org

Caldwell, J. H. (2011). *Developing essential understanding of addition and subtraction for teaching mathematics in prekindergarten-grade* 2. Reston, VA: National Council of Teachers of Mathematics.